



Volume 22

An ARCEC Monthly Publication

September 2013

Counterpoise Editor - Susan Robins AF6LJ

Dayton: 2013 The Adventure

by Sue Robins AF6LJ

Pictures by Pat Bunsold WA6MHZ

The one single social event that stands out head and shoulders above all the rest is the yearly Dayton Hamvention. Every year thousands of hams flock to Dayton Ohio and the Hara Arena for this event. Anything and everything related to amateur radio can be found at the Dayton Hamvention.

Pat WA6MHZ has been making the trek to the Dayton Hamvention for several years now and has shared his trip with members of QRZ Forums, this year he decided to share his trip to and from Dayton by means of a video called Dayton The Adventure. The video begins at Pat's QTH just before launch and chronicles the sights, seen along the way and the problems encountered with radios and antennas over the 2000+ mile trip to Dayton. Upon arrival some of the pre-convention setup and social activities Pat had engaged in along with shots of the flea market. The return trip is also chronicled in this video as well, the whole experience is wrapped up with very good and carefully chosen music.

Pat's trip wasn't without occurring a few choice items for the Crest Radio Museum along the

way, not the least of which was a Heathkit HX-10 Marauder SSB transmitter and a very clean, and rare Hallicrafters SR-2000.

Dayton The Adventure was well received by the club when it was screened at the September 12th meeting. The video has also been seen at a few other clubs since mid summer. For those who have not seen Dayton The Adventure it is highly recommended.



ARCEC Repeater Frequencies

2 Meter Repeater	220 MHz Repeater	440 MHz Repeater
TX 146.475	TX 220..480	TX 440.900
RX 147.420	RX 224.080	RX 445.900
Offset .945	Offset 1.6	Offset 5.00
PL 107.2	PL 107.2	PL 107.2



YOU CAN WORK DX ON CW!

by WA6MHZ

Phone is the easy mode to work DX on. You just holler into the mic and, after awhile, get through. I have been at it since 1980 (when I got my Advanced class license) and am now on the Honor Roll for Phone. But the Serious DXers all use CW as their preferred mode to ferret out the rare ones. CW gets through where phone is just muffled noise. The trick, though, is to COPY the CW!

I have been trying since 1968 to copy CW, to no avail. OH, I DO know the code, but copying it FAST is another story. Once you get above 15WPM, it is too fast to write down, so you need to start copying it in your head. that requires REMEMBERING what you heard, and storing it in your brain to form words. I have no short term memory, so I recognize the letters I hear, but immediately forget them. It is necessary to remember the previous letters and add them to the incoming letters to form a word. I just can't do it, no matter how much I practice or try. But there still is hope for working CW DX! Unlike a Conversation QSO, a DX QSO is very simple. The DX Station gets your call and responds to it. Much like this:

DX1DX UP

WA6MHZ WA6MHZ

WA6MHZ 5NN

RR 5NN TU

TU DX1DX UP

And that is it. U you worked a DX Station for a new country and that is all that is required to get a QSL and confirmation for the contact. So it is very easy to work DX on CW without really knowing the code very well. The ONE thing you DO need to know is your callsign at high speeds. Many of the CW DX run around 35WPM. Some go crazy and are as high as 60WPM!!!! That just sounds like a buzz. The first thing to get is a CW Keyer with a memory. I use an MFJ that has 4 preset buttons for different messages. I program it as follows:

#1: WA6MHZ

#2: WA6MHZ WA6MHZ

#3: RR 5NN TU

#4: WA6MHZ 5NN TU

I made a remote button box so all 4 buttons are right next to the hand key. I don't use a Paddle, only a Straight key. First we need to find the DX Station and what his call is. That is easy as all the trendy DX are listed on the DX Summit showing where they are on the band, and who is hearing them. <http://www.dxsummit.fi/>

Click on "DX SPOTS" for a list of current DX. As you tune around the CW band, you will hear pile-ups. These can be recognized by one station sending out callsigns and 5NN, and then Zillions of stations calling back, usually up 1 or 2 KHZ. Locate the DX. Occasionally he will send his

call, so you can verify he agrees with the DX Summit listing. It may take awhile to copy his call. The trick is to do one letter at a time. He will also be sending station calls he is working, so those can be ignored until he IDs. If you suspect he is DX1DX, it is easy to copy it when he finally does ID. Sometimes the station you hear is NOT the DX you find on the cluster. So it does take some detective work to determine WHO is the station on Frequency. Now, the most important thing. You need to be able to copy YOUR CALLSIGN at high speeds. Set the keyer to play your call at, oh, 25WPM and listen to it. Play it over and over and over and soon, it will become a SOUND in itself. When you hear it, you immediately recognize it. You are ready to WORK DX!

You need to be able to understand directives too. The most common one is "UP". That means he is listening up 1 or 2 KHZ and you should NOT transmit on his frequency. Don't do that or you will be a LID and all kinds of frequency police will start sending "UP" "UP"!!!! Listen where the OTHER stations calling are and transmit there. The DX will not hear you unless you are WHERE he is listening. Usually when he completes a QSO, he will send "TU" meaning THANK YOU. That is when you should call. Press the #1 button and see if he responds. Only use the #1 if he is going fast. #2 is reserved for slower stations. Set it to about 22

WPM to start, as that will be easy for him to copy. He KNOWS CW fast, and will copy your call easily since it is machine sent. Sending by hand can cause errors in reception. Expect it to take quite some time before he responds to YOU! There are MILLIONS calling and he will find lots others before he finds you. But, keep at it and sooner or later, he will find YOUR signal and respond with your call and a 5NN Quickly hit the #3 button: RR 5NN TU. If he has your callsign wrong, don't do it!!! Push the #2 button instead which sends your call twice. He will correct it and THEN you can hit the #3 button confirming the QSO. CONGRATULATIONS!!! You just worked a New CW DXCC COUNTRY!!! So that is about it. Over time, your CW speed will build up and you will copy more code faster and better. I have hit the wall with Speed, even though I try every night for more DX. Thanks to NO short term memory. But more and more CW countries are being added to my total in the meantime.

Some Hams try to use a CODE READER, but that is almost like cheating. If you are going to use one of those, U might as well be on RTTY. My MFJ has a code reader built into it, but it generally does a poor job on DX. QRM, poorly sent code and other noise cause it not to print correctly. So you need to rely on the CW DECODER in your BRAIN to work the DX. You get a great sense of ACCOMPLISHMENT working CW, much more than voice or Digital. Because YOU are the computer doing the hard work!

--

Pat Bunsold WA6MHZ

Curator: Crest Radio Museum

Chief Surgeon: El Cajon Radio Hospital

President: San Diego QCWA Chapter 14

President: Amateur Radio Club of El Cajon for the year 2013

Next Month's Meeting

Annual Homebrew Contest and Dave Ward will give a presentation on sending email over HF.

Coming up in November, Monica Zech will give a presentation on preparedness, look forward to seeing you there.

Editor's Notes

Sue Robins AF6LJ

Home brewing and kit projects are a mainstay of this hobby. The electronics hobby in general has seen a resurgence in interest. Sites are popping up with people's projects, hardware hacks, repurposing of castoff electronics and all of manner of do-it yourself projects. We have seen the rise in popularity of TV tuner adapters being repurposed as software defined receivers, and we will be seeing a lot more of this in the months to come. Amateur radio has a long history of this activity, dating back to the very beginnings of the hobby.

This resourcefulness comes in handy in situations outside of amateur radio from time to time as I have found out in my own life. Before becoming an amateur radio operator I had long been a dedicated electronics hobbyist. This resourcefulness has proved to be valuable to me on many occasions. Once I was asked by my father to talk a look as his CB (an old Sears Roadtalker) the complaint he had was that noise blanker seemed not to work. There wasn't much in the way of service information in regards to the noise blanker circuit, but I knew how it was suppose to work. On a Saturday afternoon I sat down with my breadboard and built a circuit using a 555 timer a couple of fast diodes for clipping and some other small parts and I built an ignition noise generator. I called it "The Volkswagen In A Box". It was just a scrap of perf board a castoff enclosure from another project that had long since outlived its usefulness and some junk parts I had laying around. The VWIAB had two clip leads for power and ground (12V), a pot to adjust the level and an RCA jack to for the pulse output. The box worked great for aligning that noise blanker circuit, so well in fact I used it to align the noise blanker in my IC-745. Later the box came handy for aligning the noise blanker circuits in commercial radios, Motorola called their noise blanker the "Extender". I didn't \$2.50 in parts in that project but it more than well paid for it's usefulness. That was one instants where necessity brought a new piece of test equipment to my bench, there was another time when necessity required the modification of an existing piece of gear to perform a specific task in order to solve a problem.

I had worked on a piece of two way radio gear that a blow voltage regulator, and the repair seemed to be successful the radio worked fine on the bench, so it was tested for the usual stuff, modulation, power out, being on frequency and the receiver performance was checked and it was sent on its way. Well the radio returned the next day with a different complaint, "alternator wine", I went out and verified that the sound coming out of the speaker was in fact alternator wine, it was, a classic case as a matter of fact, but wait there is more to borrow a phrase. I went back to my bench and brought out my DMM and proceeded to check the truck's charging system, a very simple process that takes only a minute or two, and I found everything seemed to be okay, I couldn't see any ripple caused by the alternator on my DMM or on the shop scope which I had wheeled out to the install bay to verify the DC power was clean enough. The customer had a spare radio and we plugged that one in and, guess what? No alternator wine. We took the radio back and that evening I thought about how was I going to troubleshoot this problem on the bench.

The answer came to me in sort order, I needed a dirty source of DC to run the power supply on, something was wrong with the radio's power input circuit and I needed to simulate low level alternator wine. I have a small 4 amp 12V power supply it provided enough current to run the radio on for receiving and solving this problem. So I modified the power supply and by combining the power supply's voltage reference with just a little half wave rectified signal from an audio generator I had my slightly dirty source of DC power. I took the modified power supply into work hooked an audio source up to the mod I had made and connected the radio, fifteen minutes later I had found the bad part, a shorted input filter choke, and in less than a half hour of our time we had a fixed radio and a happy customer.

The rewards this hobby has to offer are far reaching and last a lifetime, I would encourage anyone who has even a remote interest in homebrewing to get involved. Amateur radio is

an exciting hobby, and building some or even all of your own gear is very gratifying.

Our Tower Trailer Needs A New Home

All good things must come to an end, and the location for storing our tower trailer is one such thing. If anybody knows of where the tower trailer can be stored when it is not in use please contact the board of directors, they can be reached at; bod@wa6bgs.us

Club Shirts & Jackets

We have 2013 club shirts and jackets available at meetings and from the club website. Shirts are available sizes from small to XX large, this year's shirt has a pocket and as usual is green in color with the club logo in white. The cost is \$12.00 each. You can get a 2013 Field Day shirt or the standard club shirt, both styles of shirts have the club logo on the back and the left side.

Jackets are also available in sizes ranging from Medium to XX large. These are of the lined windbreaker style, with side pockets and they snap down the front. The cost is \$24.00 each.

We also have a number of shirts from 2012, these shirts are identical to the 2013 shirts without the pocket, and they are available in both the standard club shirt and the 2012 Field Day shirt. Sizes are limited to stock on hand. For more information regarding our club shirts see; <http://wa6bgs.us/2013-club-shirts-and-jackets/>





The AMATEUR RADIO CLUB OF EL CAJON^{Inc.}

WA6BGS

Post Office Box Fifty, El Cajon California 92022

Founded 1960 ~ Incorporated 1976

Please fill out this form and see the options at the bottom for Submitting options, all of the information is required for application to be accepted.

PRIMARY APPLICANT

Date of Application:

Amount Paid: ☒ Cash or ☐ Check Check #:

Membership Type: ☐ Individual (\$20) ☐ Family (\$35)

Membership Status: ☐ New ☐ Renewal ☐ Returning Member

Call Sign First Name Last Name WAMO # (If renewing or returning)

ARRL Member: ☐ Yes ☐ No

License Class: ☐ Technician ☐ General ☐ Extra ☐ Other:

Address City State Zip

Email ID Phone

Would you like a member badge? ☐ Yes ☐ No - Free with new membership, 1 per primary applicant

Add Additional Members Here (Family Membership):

First Name	Last Name	Call Sign	License Class	Minor?	ARRL?
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

Privacy Options

☐ Do Not Call - Your phone number will be marked as a Do Not Call

Your phone number will not be listed on any publication

To submit this form, you can either print and mail it to P.O. Box 50 El Cajon, 92022

-OR- Click Submit on the right to save it as an FDF file and email it to wa6bgs@wa6bgs.us

Pay with PayPal

Submit to ARCEC

Cash Payments - Get a Receipt from the Club Treasurer. Make all checks payable to AMATEUR RADIO CLUB of EL CAJON, Incorporated.

Receipts for

payments by check will be sent by email or regular mail by the Club Treasurer.

Members with FCC Call Signs are Full Members with voting privileges, Members without FCC Call Signs are Associate members without voting privileges

YOUR DUES ARE TAX DEDUCTABLE: Amateur Radio Club of El Cajon, Inc. is a 501(c)(7) Corporation. Donations are NOT tax Deductable.